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10/667,383	09/23/2003	Jong-Hyun Yoon	0630-1845P	1937

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EXAMINER

SCHNURR, JOHN R

ART UNIT	PAPER NUMBER
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2623

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/667,383

Applicant(s)

YOON, JONG-HYUN

Examiner

John R. Schnurr

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to Application No. 10/667,383 filed 09/23/2003.

Claims 1-15 are pending and have been examined.

Claim Objections

2. Claim 10 objected to because of the following informalities: The claim consists of two sentences. MPEP 608.01 states, "Each claim begins with a capital letter and ends with a period. Periods may not be used elsewhere in the claims except for abbreviations. See *Fressola v. Manbeck*, 36 USPQ2d 1211 (D.D.C. 1995)." Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Giammaressi (US Patent 7,086,077)** in view of **Goldthwaite et al. (US Patent Application Publication 2003/0154480)**, herein Goldthwaite, and further in view of **Seed et al. (US Patent Application Publication 2006/0015574)**, herein Seed.

Consider **claim 1**, Giammaressi clearly teaches a method for outputting A/V streams onto a screen in response to a user's request by a network which

Art Unit: 2623

includes a server for outputting audio/video streams and plural renderers connected to the server through a network, **(Fig. 1)** comprising:

a step in which a renderer connected to a server requests A/V streams; **(Fig. 2 Step 208, column 6 lines 14-15)**

a step in which the server judges whether A/V streams can be outputted in response to the request from the renderer; **(Fig. 2 Step 214, column 6 lines 30-31)**

a step in which the server provides the A/V streams to the renderer sequentially or simultaneously if the A/V stream can be outputted, **(Fig. 2 Step 222)**

Giammaressi further teaches the network may be any conventional broadband network. **(column 5 lines 8-10)**

However, Giammaressi does not explicitly teach the network being a home network.

In an analogous art Goldthwaite, which discloses a system for distributing media from a server, clearly teaches a home network. **([0024])**

Because both Giammaressi and Goldthwaite teach methods of transferring A/V data over a network, it would have been obvious to one of ordinary skill in the art to substitute the home network of Goldthwaite into the system of Giammaressi to achieve the predictable result of transferring A/V data from the server to a client.

Giammaressi combined with Goldthwaite further teaches denying the subscriber access to the A/V data if insufficient bandwidth is detected. **(column 7 lines 2-8 Giammaressi)**

However, Giammaressi combined with Goldthwaite does not explicitly teach outputting a server unavailable message to the render.

In an analogous art Seed, which discloses a system for distributing media from a server, clearly teaches outputting an unavailable message if the server judges that the A/V streams can not be outputted. **([0029])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite by outputting an unavailable message, as taught by Seed, for the benefit of notifying the user that a particular content is unavailable.

Art Unit: 2623

Consider **claim 2**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches in the step of judging whether A/V streams can be outputted, the server compares transmission time of entire A/V streams and A/V stream transmission time according to a defined reproduction capability of the server required for reproducing A/V streams, and then judges whether the A/V streams can be outputted. **(Fig. 2: At step 210 the bandwidth required to transmit the requested program is determined, column 6 lines 14-18. At step 214 the required bandwidth is compared to the bandwidth available from the server resources, column 6 lines 24-44 Giammaressi.)**

Consider **claim 3**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches if the server's transmission time is slower than the defined transmission time, the server transfers a server unavailability message to the renderer. **([0029] Seed)**

Consider **claim 4**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches the A/V stream transmission time is time taken for the header to simultaneously read A/V streams stored in a storing medium and output them. **(Fig. 1: The delivery rates of the read circuitry of the storage unit 114-1 are taken into account, column 3 lines 41-45 and column 6 lines 24-29 Giammaressi. The storage device utilizes mechanical head movements, column 2 lines 44-46 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 8**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches in the step of judging whether A/V streams can be outputted, **(Fig. 2: Step 214 Giammaressi)** a reproduction processing capability of the server including a CPU and a memory is judged. **(Fig. 1: The determination is made with respect to the capabilities of video server resources, which includes Information server 108, column 6 lines 24-26 Giammaressi. The information server 108 contains CPU 110 and memory 112, column 2 lines 51-54 Giammaressi.)**

Consider **claim 11**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches the server is a medium reproducing unit for reproducing an optical recording medium, a hard disk medium or a medium including the optical recording medium and the hard disk medium. **(Fig. 1: Data storage 114 may be a magnetic disk drive or an optical disk drive, column 3 lines 2-7 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 12**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches the medium reproducing unit reads A/V streams stored in certain positions of the recording medium through at least one or more headers

Art Unit: 2623

performing a mechanical position movement. **(The storage device records information in "block-serial" form and utilizes mechanical head movements, column 1 lines 40-45 and column 2 lines 44-46 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 13**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches the renderer is a display unit for outputting A/V streams provided from the server on a screen. **(Fig. 1 display device 140, column 5 lines 23-27 Giammaressi.)**

Consider **claim 14**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches the home network is a cable communication network on the basis of Ethernet or home PNA, IEEE1394. **([0026] Goldthwaite)**

Consider **claim 15**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches the home network is a wireless communication network on the basis of a bluetooth, Wireless1394, HomeRF. **([0026] Goldthwaite)**

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Giammaressi (US Patent 7,086,077)** in view of **Goldthwaite et al. (US Patent Application Publication 2003/0154480)** and further in view of **Seed et al. (US Patent Application Publication 2006/0015574)**, as applied to claim 1 above, and further in view of **Lam et al. (US Patent 6,917,569)**, herein Lam.

Consider **claim 6**; Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches in the step of judging whether A/V streams can be outputted, the server compares the overall transfer rate of the A/V streams being reproduced and a predetermined A/V stream transfer rate **(Fig. 2: At step 210 the bandwidth required to transmit the requested program is determined, column 6 lines 14-18. At step 214 the required bandwidth is compared to the bandwidth available from the server resources, column 6 lines 24-44 Giammaressi.)**

Giammaressi combined with Goldthwaite and Seed, as in claim 1, further teach the bandwidth available from the server resources includes the read time of data from the storage units. **(column 3 lines 41-45 and column 6 lines 24-29 Giammaressi)**

Art Unit: 2623

However, Giammaressi combined with Goldthwaite and Seed, as in claim 1, does not explicitly teach determining the read time from the storage unit based on a distance between two memory locations.

In an analogous art Lam, which discloses a system for accessing data from a physical disk storage device, clearly teaches determining seek times based the distance between two memory locations. (**column 3 lines 2-3**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 1, by determining the transfer rate based on the distance between memory locations, as taught by Lam, for the benefit of providing dynamic disk allocation based on actual usage (see column 2 lines 64-65 Lam.)

Consider **claim 7**, Giammaressi combined with Goldthwaite, Seed and Lam, as in claim 6, clearly teaches the server judges a time point where the overall transfer rate for the current reproduction becomes slower than the predetermined transfer rate, (**column 7 lines 2-8 Giammaressi**) and transfers the server unavailability message sequentially or simultaneously to connected renderers. ([0029] Seed)

6. Claims **5 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Giammaressi (US Patent 7,086,077)** in view of **Goldthwaite et al. (US Patent Application Publication 2003/0154480)** and further in view of **Seed et al. (US Patent Application Publication 2006/0015574)**, as applied to claim 1 above, and further in view of **Bachmat (US Patent 6,189,071)**.

Consider **claim 5**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches the stream transmission time includes the read time of data from the storage units. (**column 3 lines 41-45 and column 6 lines 24-29 Giammaressi**)

However, Giammaressi combined with Goldthwaite and Seed, as in claim 1, does not explicitly teach the A/V stream transmission time signifies total amount of time obtained by adding the a seek time taken for the header to move to an address where the A/V stream is positioned, a head activation time taken for the header to select a track in which the A/V stream is stored, a rotation latency time

Art Unit: 2623

taken for the header to be positioned at a desired sector, and a time taken for the A/V stream read through the header to be transferred to the memory.

In an analogous art Bachmat, which discloses a system for accessing data from a physical disk storage device, clearly teaches the A/V stream transmission time signifies total amount of time obtained by adding the a seek time taken for the header to move to an address where the A/V stream is positioned, a head activation time taken for the header to select a track in which the A/V stream is stored, a rotation latency time taken for the header to be positioned at a desired sector, and a time taken for the A/V stream read through the header to be transferred to the memory. **(column 11 lines 45-49)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 1, by determining the transfer time based on the sum of the seek time, latency times and memory transfer times, as taught by Bachmat, for the benefit of providing dynamic disk allocation based on actual usage (see column 3 lines 1-7 Bachmat.)

Consider **claim 9**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches in the step of judging whether A/V streams can be outputted, the number of A/V streams that can be finally outputted is judged on the basis of the storage units bandwidth requirements and the server's reproduction processing capability, **(column 3 lines 41-45 and column 6 lines 24-29 Giammaressi)** in order to determine whether to transfer **(column 7 lines 2-8 Giammaressi)** the server unavailability message. **([0029] Seed)**

However, Giammaressi combined with Goldthwaite and Seed, as in claim 1, does not explicitly teach the storage units bandwidth requirements include the header movement speed, header reading speed.

In an analogous art Bachmat, which discloses a system for accessing data from a physical disk storage device, clearly teaches the storage units bandwidth requirements include the header movement speed, header reading speed. **(column 10 lines 47-52)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 1, by determining the transfer time based on the sum of the seek time, latency times and memory transfer times, as taught by Bachmat, for the benefit of providing dynamic disk allocation based on actual usage (see column 3 lines 1-7 Bachmat.)

Art Unit: 2623

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Giammaressi (US Patent 7,086,077)** in view of **Goldthwaite et al. (US Patent Application Publication 2003/0154480)** and further in view of **Seed et al. (US Patent Application Publication 2006/0015574)**, as applied to claim 1 above, and further in view of **Brown (US Patent 5,822,530)**.

Consider **claim 10**, Giammaressi combined with Goldthwaite and Seed, as in claim 1, clearly teaches in the step of outputting the server unavailability message, if some plural renders are additionally connected to the server and request A/V streams, the A/V streams are transferred from the server to the renderers in order of the plural renderers' **(The system includes multiple set-top terminals, column 2 line 65 to column 3 line 1 Giammaressi.)** stream transmission request. **(Fig. 2: After allowing a video stream to be transmitted in step 216 the server returns to step 208 to wait for another programming request, the server processes each request before addressing a subsequent request, column 6 lines 30-44 Giammaressi.)**

Giammaressi combined with Goldthwaite and Seed, as in claim 1, further teaches the server outputs the server unavailability message to a renderer, which has requested the A/V streams. **[[0029] Seed)**

However, Giammaressi combined with Goldthwaite and Seed, as in claim 1, does not explicitly teach from a time point when server judges transmission of audio/video streams is not possible the server denies the video requests.

In an analogous art Brown, which discloses a system for determining if video-on-demand requests can be granted, clearly teaches from a time point when server judges transmission of audio/video streams is not possible the server denies the video requests. **(If the VOD customer count reaches its maximum the video request is denied, column 6 lines 20-24.)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 1, by denying video requests from a time point when the server judges transmission of video streams is not possible, as taught by Brown, for the benefit of preventing system resources from being constrained (see column 2 lines 46-61 Brown).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Schnurr whose telephone number is (571) 270-1458. The examiner can normally be reached on Monday - Friday, 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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